ABSTRACT OF THE DISCLOSURE

A power supply system prevents the output voltage from dropping during the changeover of the power source from a series regulator to a DC-DC converter. The power supply system has two types of power sources, a DC-DC converter and a series regulator that are connected parallel to each other. The first switching element of the DC-DC converter transfers the input voltage to the load. The second switching element connects the load to the ground. The control circuit turns ON and OFF the first and second switching elements on receipt of a first selection signal so that the number of turn-ONs of the second switching element gradually increases. This suppresses the current from flowing backward through the second switching element SW2 to the ground while the power source is changing over, preventing drop in the output voltage.